Response to October 12, 2005, Office Action Atty Dkt No. 02-0175 Application No. 10/729,499

APPENDIX B

CLEAN COPY OF CLAIMS AS AMENDED HEREIN

1. A compound of the formula:

$$\mathbb{R}^{1}$$

$$\mathbb{R}^{21}$$

$$\mathbb{R}^{20}$$

$$\mathbb{R}^{20}$$

$$\mathbb{R}^{20}$$

$$\mathbb{R}^{20}$$

$$\mathbb{R}^{2}$$

$$\mathbb{R}^{2}$$

$$\mathbb{R}^{2}$$

wherein:

R¹ is aryl or heteroaryl optionally substituted with 1 to 3 substituents selected from acetyl, alkyl, hydroxy, alkoxy, halogen, halogen substituted alkyl, phenyl, and phenyl substituted with acetyl, alkyl, alkoxy, hydroxy, halogen, or halogen substituted alkyl;

R² is heteroaryl optionally substituted with 1 to 3 substituents selected from acetyl, alkyl, hydroxy, alkoxy, halogen, halogen substituted alkyl, phenyl, and phenyl substituted with acetyl, alkyl, alkoxy, hydroxy, halogen, or halogen substituted alkyl

X¹ is a covalent bond, or -(CR¹⁵R¹⁶)_p-, in which R¹⁵ and R¹⁶ are independently hydrogen, hydroxy, lower alkyl, or -C(O)OR¹⁷, in which R¹⁷ is hydrogen, lower alkyl, or optionally substituted phenyl, and p is 1, 2 or 3; with the proviso that when p is 1, R¹⁵ and R¹⁶ cannot be hydroxy;

R²¹ is hydrogen or lower alkyl;

T is oxygen or sulfur;

Y and Z are -(CR¹⁸R¹⁹)_q- and q at each occurrence is 1, 2 or 3, in which R¹⁸ and R¹⁹ at each occurrence is hydrogen or lower alkyl; and

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- R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, and R¹⁰ at each occurrence are hydrogen, lower alkyl, or -C(O)R; in which R is -OR¹¹ or -NR¹¹R¹², where R¹¹ and R¹² are hydrogen or lower alkyl; or
- R³ and R⁴, R⁵ and R⁶, R⁷ and R⁸, R⁹ and R¹⁰, when taken together with the carbon to which they are attached, represent carbonyl;
- Q is oxygen, sulfur, or -NR²⁰-, in which R²⁰ is hydrogen or optionally substituted lower alkyl;
- X² is a covalent bond or -(CR¹⁸R¹⁹)_q- wherein q at each occurrence is 1, 2 or 3, and R¹⁸ and R¹⁹ at each occurrence is hydrogen or lower alkyl; and
- with the proviso that when X^1 is a covalent bond and Y is $-(CR^{18}R^{19})_{q^-}$ in which q is 1 and R^{18} and R^{19} are hydrogen, then R^1 is not optionally substituted phenyl.
- 3. The compound of claim 1, wherein R³, R⁴, R⁶, R⁷, R⁸, R⁹, and R¹⁰ at each occurrence are hydrogen and R⁵ is hydrogen or methyl.
- 4. The compound of claim 3, wherein Q and T are both oxygen and X^2 is a covalent bond.
- 5. The compound of claim 4, wherein R²¹ is hydrogen, Y is methylene or ethylene, and Z is methylene.
 - 6. The compound of claim 5, wherein R¹ is optionally substituted aryl.
- 7. (The compound of claim 6, wherein R² is optionally substituted benzothiazolyl or optionally substituted benzoxazolyl.
- 8. The compound of claim 7, wherein R¹ is indan-4-yl, R² is 2-methylbenzothiazol-5-yl, R⁵ is hydrogen, and X¹ is a covalent bond, namely 2-{4-[(2R)-2-hydroxy-3-(2-methylbenzothiazol-5-yloxy)propyl]piperazinyl}-N-indan-4-ylacetamide.

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- 9. The compound of claim 7, wherein R¹ is (1,2,3,4-tetrahydronaphth-1-yl, R² is 2-methylbenzothiazol-5-yl, R⁵ is hydrogen, and X¹ is a covalent bond, namely 2-{4-[(2R)-2-hydroxy-3-(2-methylbenzothiazol-5-yloxy)propyl]piperazinyl}-N-((1S)(1,2,3,4-tetrahydronaphthyl))acetamide.
- 10. The compound of claim 7, wherein R¹ is naphth-2-yl, R² is 2-methylbenzothiazol-5-yl, R⁵ is hydrogen, and X¹ is -CH(CH₃)-, namely 2-{4-[(2R)-2-hydroxy-3-(2-methylbenzothiazol-5-yloxy)propyl]piperazinyl}-N-((1S)-1-(2-naphthyl)ethyl)acetamide.
- 11. The compound of claim 7, wherein R¹ is phenyl, R² is 2-methylbenzothiazol-5-yl, R⁵ is hydrogen, and X¹ is -CH(CH₃)-, namely 2-{4-[(2R)-2-hydroxy-3-(2-methylbenzothiazol-5-yloxy)propyl]piperazinyl}-N-((1S)-1-phenylethyl)acetamide.
- 12. The compound of claim 6, wherein R¹ is optionally substituted heteroaryl and R² is optionally substituted benzothiazolyl or optionally substituted benzoxazolyl.
- 13. The compound of claim 12, wherein R¹ is 4-(4-chlorophenyl)thiazol-2-yl, R² is 2-methylbenzothiazol-5-yl, R⁵ is hydrogen, and X¹ is a covalent bond, namely 2-{4-[(2R)-2-hydroxy-3-(2-methylbenzothiazol-5-yloxy)propyl]piperazinyl}-N-[4-(4-chlorophenyl)(1,3-thiazol-2-yl)]acetamide.
- 14. The compound of claim 12, wherein R^1 is 4-(4-chlorophenyl)thiazol-2-yl, R^2 is 2-methylbenzothiazol-5-yl, R^5 is methyl, and X^1 is a covalent bond, namely 2-{4-[(2R)-2-hydroxy-3-(2-methylbenzothiazol-5-yloxy)propyl]-3-methylpiperazinyl}-N-[4-(4-chlorophenyl)(1,3-thiazol-2-yl)]acetamide.
- 15. The compound of claim 12, wherein R¹ is 9-ethylcarbazol-3-yl, R² is 2-methylbenzothiazol-5-yl, R⁵ is hydrogen, and X¹ is a covalent bond, namely 2-{4-[(2R)-2-

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hydroxy-3-(2-methylbenzothiazol-5-yloxy)propyl]piperazinyl}-N-(9-ethylcarbazol-3yl)acetamide.

- 16. The compound of claim 12, wherein R¹ is 6-quinolyl, R² is 2phenylbenzoxazol-5-yl, R⁵ is hydrogen, and X¹ is a covalent bond, namely 2-{4-[(2R)-2hydroxy-3-(2-phenylbenzoxazol-5-yloxy)propyl]piperazinyl}-N-(6-quinolyl)acetamide.
- The compound of claim 12, wherein R¹ is 8-quinolyl, R² is 2-17. methylbenzothiazol-5-yl, R⁵ is hydrogen; and X¹ is a covalent bond, namely 2-{4-[(2R)-2hydroxy-3-(2-methylbenzothiazol-5-yloxy)propyl]piperazinyl}-N-(8-quinolyl)acetamide.
- 18. A method of treating a disease state chosen from diabetes, damage to skeletal muscles resulting from trauma or shock and a cardiovascular disease selected from the group consisting of atrial arrhythmia, intermittent claudication, ventricular arrhythmia, Prinzmetal's (variant) angina, stable angina, unstable angina, congestive heart disease, and myocardial infarction in a mammal by administration of a therapeutically effective dose of a compound of claim 1.
- 19. The method of claim 18, wherein the disease state is a cardiovascular disease selected from atrial arrhythmia, intermittent claudication, ventricular arrhythmia, Prinzmetal's (variant) angina, stable angina, unstable angina, congestive heart disease, and myocardial infarction.
 - 20. The method of claim 18, wherein the disease state is diabetes.
- 21. A pharmaceutical composition comprising at least one pharmaceutically acceptable excipient and a therapeutically effective amount of a compound of claim 1.